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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,005	08/10/2006	Garry Robert Nunn	6002-1098	4622
465 7590 06/16/2009 YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			EXAMINER PATEL, SMITA S	
			ART UNIT 1793	PAPER NUMBER
			MAIL DATE 06/16/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/589,005

Applicant(s)

NUNN, GARRY ROBERT

Examiner

SMITA PATEL

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-47 is/are pending in the application.
- 4a) Of the above claim(s) 1-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 28-47 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 28-35, drawn to a process of preparing an aqueous crystalline biogenic silica.

Group II, claim(s) 36-42 drawn to method of remediating media containing inorganic and/or organic pollutants.

Group III, claim(s) 43, drawn to construction material or fabric treated with an aqueous crystalline biogenic silica.

Group IV, claim(s) 44, drawn to semiconductor wafer manufactured with an aqueous crystalline biogenic silica.

Group V: claim(s) 45, drawn to a fertiliser for organic plants comprising an aqueous crystalline biogenic silica.

Group VI: claim(s) 46, drawn to a process of removing a substantial heavy metal and/or reducing substantial radioactive level from an animal comprising ingesting the aqueous crystalline biogenic silica.

Group VII: claim(s) 47, drawn to a method of treating clay soil comprising adding to mass of clay soil aqueous crystalline biogenic silica prepared.

- The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Group I is for method of making biogenic silica and Group II is method of using biogenic silica so

they are not directly linked together since Group I does not include the composition of biogenic silica and biogenic silica are naturally occurring which are well known in art. They share common technical feature which is biogenic silica which are well known, for example European Patent: EPA 0301858B1.

- The special technical feature in Group III is the construction material or fabric treated with aqueous crystalline biogenic silica with substantially good flame retardation property and/or termite deterrent property. The special technical features of Group III is not shared by Groups I and II since Group I has process steps for preparing an aqueous crystalline biogenic silica and Group II is a method of remediating media containing inorganic and/or organic pollutants comprising contacting the media with the matrix generating agent.. The technical feature of Group III is not recited in Groups II and I although they share common technical feature which is crystalline biogenic silica which are well known, for example EPA 0301858 B1.
- The special technical feature in Group IV is a semi-conductor wafer manufactured with aqueous crystalline biogenic. The special technical features of Group IV is not shared by Groups I, II and III since Group I has process steps for preparing an aqueous crystalline biogenic silica, Group II is a method of remediating media containing inorganic and/or organic pollutants comprising contacting the media with the matrix generating agent and Group III is a construction material or fabric treated material with aqueous crystalline biogenic silica.. The technical feature of Group IV is not recited in Groups I, II and III although they share common technical feature

which is crystalline biogenic silica which are well known, for example EPA 0301858 B1.

- The special technical feature in Group V is a fertilizer for organic plants comprising aqueous crystalline biogenic silica. The special technical features of Group V is not shared by Groups I, II, III and IV since Group I has process steps for preparing an aqueous crystalline biogenic silica, Group II is a method of remediating media containing inorganic and/or organic pollutants comprising contacting the media with the matrix generating agent, Group III is a construction material or fabric treated material with aqueous crystalline biogenic silica and Group IV is a semi-conductor wafer manufactured. The technical feature of Group V is not recited in Groups I, II, III and IV although they share common technical feature which is crystalline biogenic silica which are well known, for example EPA 0301858 B1.
- The special technical feature in Group VI is a process of removing a substantial heavy metal and/or reducing a substantial radioactive level from an animal comprising ingesting the aqueous crystalline biogenic silica. The special technical features of Group VI is not shared by Groups I, II, III, IV and V since Group I has process steps for preparing an aqueous crystalline biogenic silica, Group II is a method of remediating media containing inorganic and/or organic pollutants comprising contacting the media with the matrix generating agent, Group III is a construction material or fabric treated material with aqueous crystalline biogenic silica, Group IV is a semi-conductor wafer manufactured and Group V is a fertilizer for organic plants. The technical feature of Group VI is not recited in Groups I, II, III,

IV and V although they share common technical feature which is crystalline biogenic silica which are well known, for example EPA 0301858 B1.

- The special technical feature in Group VII is a method of treating clay soil comprising adding to a mass of clay soil aqueous crystalline biogenic silica in proportion of between 0.2% to 2 % weight to weight of the silica to the clay soil. The special technical features of Group VII is not shared by Groups I, II, III, IV, V and VI since Group I has process steps for preparing an aqueous crystalline biogenic silica, Group II is a method of remediating media containing inorganic and/or organic pollutants comprising contacting the media with the matrix generating agent, Group III is a construction material or fabric treated material with aqueous crystalline biogenic silica, Group IV is a semi-conductor wafer manufactured, Group V is a fertilizer for organic plants and Group VII is a process of removing a substantial heavy metal and/or reducing a substantial radioactive level from an animal comprising ingesting the aqueous crystalline biogenic silica. The technical feature of Group VII is not recited in Groups I, II, III, IV, V and VI although they share common technical feature which is crystalline biogenic silica which are well known, for example EPA 0301858 B1.
1. A telephone call was made to Robert J. Patch on March 12, 2009 to request an oral election to the above restriction requirement, but did not result in an election being made.

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of

search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected species**, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election of the species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the

prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other species.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SMITA PATEL whose telephone number is (571)270-5837. The examiner can normally be reached on Monday-Thursday, 8:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SP, Art Unit 1793

06/11/2009

/Melvin Curtis Mayes/

Supervisory Patent Examiner, Art Unit 1793